

APPENDIX B

B.1 Functional Acknowledgment - Transaction Set 997

PURPOSE: This implementation of this 997 Functional Acknowledgement is transmitted as a return receipt to indicate the acceptance or rejection of a 863 Report of Test Results used for the submission of the Discharge Monitoring Report to the EPA. This acceptance/rejection applies only to the ability of submitted data to be translated under the X12 implementation convention for this reporting. This transaction in no way reflects on the validity of the data translated.

A Functional Acknowledgement indicating acceptance of an 863 transmission establishes the "Received Date" for the DMR.

TIMING: A 997 Transaction Set is generated and returned to the Trading Partner at the completion of the translation of an inbound 863 Transaction Set.

TRANSACTION SET: ASC X12 Functional Acknowledgment (997), Version/Release 003040.

NOTE: The following symbols are found in the convention:

>> indicates a required element
x indicates an element not used

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997 Functional Acknowledgment

Functional Group ID= **FA**

Introduction:

This Draft Standard for Trial Use contains the format and establishes the data contents of the Functional Acknowledgment Transaction Set (997) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to define the control structures for a set of acknowledgments to indicate the results of the syntactical analysis of the electronically encoded documents. The encoded documents are the transaction sets, which are grouped in functional groups, used in defining transactions for business data interchange. This standard does not cover the semantic meaning of the information encoded in the transaction sets.

<u>Pos. No.</u>	<u>Seg. ID</u>	<u>Name</u>	<u>Req. Des.</u>	<u>Max. Use</u>	<u>Loop Repeat</u>	<u>Notes and Comments</u>
010	ST	Transaction Set Header	M	1		n1
020	AK1	Functional Group Response Header	M	1		n2
		LOOP ID - AK2			999999	
030	AK2	Transaction Set Response Header	O	1		n3
		LOOP ID - AK3			999999	
040	AK3	Data Segment Note	O	1		c1
050	AK4	Data Element Note	O	99		
060	AK5	Transaction Set Response Trailer	M	1		
070	AK9	Functional Group Response Trailer	M	1		
080	SE	Transaction Set Trailer	M	1		

Transaction Set Notes

- These acknowledgments shall not be acknowledged, thereby preventing an endless cycle of acknowledgments of acknowledgments.
The Functional Group Header Segment (GS) is used to start the envelope for the Functional Acknowledgment Transaction Sets. In preparing the functional group of acknowledgments, the application sender's code and the application receiver's code, taken from the functional group being acknowledged, are exchanged; therefore, one acknowledgment functional group responds to only those functional groups from one application receiver's code to one application sender's code.
There is only one Functional Acknowledgment Transaction Set per acknowledged functional group.
- AK1 is used to respond to the functional group header and to start the acknowledgement for a functional group. There shall be one AK1 segment for the functional group that is being acknowledged.
- AK2 is used to start the acknowledgement of a transaction set within the received functional group. The AK2 segments shall appear in the same order as the transaction sets in the functional group that has been received and is being acknowledged.

Transaction Set Comments

1. The data segments of this standard are used to report the results of the syntactical analysis of the functional groups of transaction sets; they report the extent to which the syntax complies with the standards for transaction sets and functional groups. They do not report on the semantic meaning of the transaction sets (for example, on the ability of the receiver to comply with the request of the sender).

Segment: **ST** Transaction Set Header
Position: 010
Loop:
Level:
Usage: Mandatory
Max Use: 1
Purpose: To indicate the start of a transaction set and to assign a control number
Syntax Notes:
Semantic Notes: 1 The transaction set identifier (ST01) used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the invoice transaction set).

Comments:

Notes: Example: ST*997*0001 N/L

Data Element Summary

	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
> >	ST01	143	Transaction Set Identifier Code	M ID 3/3
			Code uniquely identifying a Transaction Set.	
			997 X12.20 Functional Acknowledgment	
> >	ST02	329	Transaction Set Control Number	M AN 4/9
			Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	
			Start with 0001 and increment by 1 for each subsequent transaction set.	

Segment:	AK1 Functional Group Response Header
Position:	020
Loop:	
Level:	
Usage:	Mandatory
Max Use:	1
Purpose:	To start acknowledgment of a functional group.
Syntax Notes:	
Semantic Notes:	1 AK101 is the functional ID found in the GS segment (GS01) in the functional group being acknowledged. 2 AK102 is the data interchange control number found in the GS segment in the functional group being acknowledged.
Comments:	
Notes:	Example: AK1*RT*2 N/L

Data Element Summary					
	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>	
> >	AK101	479	Functional Identifier Code	M	ID 2/2
			Code identifying a group of application related Transaction Sets.		
			RT Report of Test Results (863)		
> >	AK102	28	Group Control Number	M	N0 1/9
			Assigned number originated and maintained by the sender.		
			Specific value from GS06 of the functional group being acknowledged.		

Segment:	AK2 Transaction Set Response Header
Position:	030
Loop:	AK2
Level:	
Usage:	Optional
Max Use:	1
Purpose:	To start acknowledgment of a single transaction set.
Syntax Notes:	
Semantic Notes:	1 AK201 is the transaction set ID found in the ST segment (ST01) in the transaction set being acknowledged. 2 AK202 is the transaction set control number found in the ST segment in the transaction set being acknowledged.
Comments:	
Notes:	Example: AK2*863*0001 N/L

Data Element Summary				
Ref.	Data			
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>	
> >	AK201	143 Transaction Set Identifier Code	M	ID 3/3
		Code uniquely identifying a Transaction Set.		
		863 X12.41 Report of Test Results		
> >	AK202	329 Transaction Set Control Number	M	AN 4/9
		Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set		
		Contains the value from ST02 of the transaction set being acknowledged.		

Segment: **AK3** Data Segment Note
Position: 040
Loop: AK3
Level:
Usage: Optional
Max Use: 1
Purpose: To report errors in a data segment and to identify the location of the data segment.
Syntax Notes:
Semantic Notes:
Comments:
Notes: Example: AK3*PER*8 N/L

Data Element Summary				
	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
> >	AK301	721	Segment ID Code Code defining the segment ID of the data segment in error. See Appendix A - Number 77.	M ID 2/3
> >	AK302	719	Segment Position in Transaction Set The numerical count position of this data segment from the start of the transaction set: the transaction set header is count position 1.	M N0 1/6
	AK303	447	Loop Identifier Code The loop ID number given on the transaction set diagram is the value for this data element in segments LS and LE	O AN 1/4
	AK304	720	Segment Syntax Error Code Code indicating error found based on the syntax editing of a segment Refer to 003040 Data Element Dictionary for acceptable code values.	O ID 1/3
X	AK305	720	Segment Syntax Error Code Code indicating error found based on the syntax editing of a segment Refer to 003040 Data Element Dictionary for acceptable code values.	O ID 1/3
X	AK306	720	Segment Syntax Error Code Code indicating error found based on the syntax editing of a segment Refer to 003040 Data Element Dictionary for acceptable code values.	O ID 1/3
X	AK307	720	Segment Syntax Error Code Code indicating error found based on the syntax editing of a segment Refer to 003040 Data Element Dictionary for acceptable code values.	O ID 1/3
X	AK308	720	Segment Syntax Error Code Code indicating error found based on the syntax editing of a segment Refer to 003040 Data Element Dictionary for acceptable code values.	O ID 1/3

Segment: **AK4** **Data Element Note**
Position: 050
Loop: AK3
Level:
Usage: Optional
Max Use: 99
Purpose: To report errors in a data element and to identify the location of the data element.
Syntax Notes:
Semantic Notes:
Comments:
Notes: Example: AK4*2*366*7 N/L

Data Element Summary

	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
> >	AK401	722	Element Position in Segment	M N0 1/2
			This is used to indicate the relative position of the data element in error in this data segment. The count starts with 1 for the data element immediately following the segment ID. This value is 0 for an error in the segment ID.	
	AK402	725	Data Element Reference Number	O N0 1/4
			Reference number used to locate the Data Element Dictionary.	
> >	AK403	723	Data Element Syntax Error Code	M ID 1/3
			Code indicating the error found after syntax edits of a data element.	
			Refer to 003040 Data Element Dictionary for acceptable code values.	
	AK404	724	Copy of Bad Data Element	O AN 1/99
			This is a copy of the data element in error.	

Segment: **AK5** Transaction Set Response Trailer
Position: 060
Loop: AK2
Level:
Usage: Mandatory
Max Use: 1
Purpose: To acknowledge acceptance or rejection and to report errors in a transaction set.
Syntax Notes:
Semantic Notes:
Comments:

Data Element Summary

Ref.	Data	Name	Attributes
Des.	Element		
>>	AK501	717 Transaction Set Acknowledgment Code	M ID 1/1
		Code indicating accept or reject condition based on the syntax editing of the transaction set.	
		A Accepted	
		R Rejected	
	AK502	718 Transaction Set Syntax Error Code	O ID 1/3
		Code indicating error found based on the syntax editing of a transaction set.	
		Refer to 003040 Data Element Dictionary for acceptable code values.	
	AK503	718 Transaction Set Syntax Error Code	O ID 1/3
		Code indicating error found based on the syntax editing of a transaction set.	
		Refer to 003040 Data Element Dictionary for acceptable code values.	
	AK504	718 Transaction Set Syntax Error Code	O ID 1/3
		Code indicating error found based on the syntax editing of a transaction set.	
		Refer to 003040 Data Element Dictionary for acceptable code values.	
	AK505	718 Transaction Set Syntax Error Code	O ID 1/3
		Code indicating error found based on the syntax editing of a transaction set.	
		Refer to 003040 Data Element Dictionary for acceptable code values.	
	AK506	718 Transaction Set Syntax Error Code	O ID 1/3
		Code indicating error found based on the syntax editing of a transaction set.	
		Refer to 003040 Data Element Dictionary for acceptable code values.	

Segment: **AK9** **Functional Group Response Trailer**
Position: 070
Loop:
Level:
Usage: Mandatory
Max Use: 1
Purpose: To acknowledge acceptance or rejection of a functional group and report the number of included transaction sets from the original trailer, the accepted sets, and the received sets in this functional group.

Syntax Notes:**Semantic Notes:**

Comments: 1 If AK901 is 'A' or 'E', then the transmitted functional group is accepted. If AK901 is 'R', then the transmitted group is rejected.

Notes: Example: AK9*3*3*2 N/L

Data Element Summary

Ref.	Data				
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>		
> > AK901	715	Functional Group Acknowledge Code	M	ID	1/1
		Code indicating accept or reject condition based on the syntax editing of the functional group.			
		Refer to 003040 Data Element Dictionary for acceptable code values.			
> > AK902	97	Number of Transaction Sets Included	M	N0	1/6
		Total number of transaction sets included in the functional group or interchange (transmission) group terminated by the trailer containing this data element.			
		Number of transaction sets transmitted according to the value in GS01 of the received functional group.			
> > AK903	123	Number of Received Transaction Sets	M	N0	1/6
		Number of Transaction Sets received.			
> > AK904	2	Number of Accepted Transaction Sets	M	N0	1/6
		Number of accepted Transaction Sets in a Functional Group.			
AK905	716	Functional Group Syntax Error Code	O	ID	1/3
		Code indicating error found based on the syntax editing of the functional group header and/or trailer.			
		Refer to 003040 Data Element Dictionary for acceptable code values.			
AK906	716	Functional Group Syntax Error Code	O	ID	1/3
		Code indicating error found based on the syntax editing of the functional group header and/or trailer.			
		Refer to 003040 Data Element Dictionary for acceptable code values.			
AK907	716	Functional Group Syntax Error Code	O	ID	1/3
		Code indicating error found based on the syntax editing of the functional group header and/or trailer.			
		Refer to 003040 Data Element Dictionary for acceptable code values.			
AK908	716	Functional Group Syntax Error Code	O	ID	1/3

Code indicating error found based on the syntax editing of the functional group header and/or trailer.

Refer to 003040 Data Element Dictionary for acceptable code values.

AK909 716 Functional Group Syntax Error Code O ID 1/3

Code indicating error found based on the syntax editing of the functional group header and/or trailer.

Refer to 003040 Data Element Dictionary for acceptable code values.

Segment: **SE** Transaction Set Trailer**Position:** 080**Loop:****Level:****Usage:** Mandatory**Max Use:** 1**Purpose:** To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments).**Syntax Notes:****Semantic Notes:****Comments:** 1 SE is the last segment of each transaction set.**Notes:** Example: SE*12*0001 N/L**Data Element Summary**

	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
> >	SE01	96	Number of Included Segments	M NO 1/10
			Total number of segments included in a transaction set including ST and SE segments.	
> >	SE02	329	Transaction Set Control Number	M AN 4/9
			Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	
			Must be the same value as ST02.	

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B.2 997 Functional Acknowledgement Detail Mapping

This example is based on receipt of a transmission containing 3 reports (transaction set 863 - Report of Test Results); two were correct; the third had an error in the eighth segment, a PER which contained an invalid code in the second data element (DE 366).

POS SEGMENT/ELEMENT INFORMATION
DE#

010 ST*997*0001 N/L
Transaction Set Header

143 ST01 997 Transaction Set ID Code.
997 - Functional Acknowledgement

329 ST02 0001 Transaction Set Control Number.

020 AK1*RT*2 N/L
Functional Group Response Header

479 AK101 RT Transaction Set Purpose .
RT - Report of Test Results (863)

28 AK102 2 Group Control Number (from GS06 of the
functional group being acknowledged)

030 AK2*863*0001 N/L
Transaction Set Response Header

143 AK201 863 Transaction Set Identifier Code
863 - Report of Test Results

329 AK202 0001 Transaction Set Control Number (from ST02
of the transaction set being acknowledged)

060 AK5*A N/L
Transaction Set Response Trailer

717 AK501 A Transaction Set Acknowledgement Code
A - Accepted

030 AK2*863*0002 N/L
Transaction Set Response Header

143 AK201 863 Transaction Set Identifier Code

		863 - Report of Test Results
329	AK202 0002	Transaction Set Control Number (from ST02 of the transaction set being acknowledged)
060	AK5*A N/L	
	Transaction Set Response Trailer	
717	AK501 A	Transaction Set Acknowledgement Code A - Accepted
030	AK2*863*0003 N/L	
	Transaction Set Response Header	
143	AK201 863	Transaction Set Identifier Code 863 - Report of Test Results
329	AK202 0003	Transaction Set Control Number (from ST02 of the transaction set being acknowledged)
040	AK3*PER*8 N/L	
	Data Segment Note	
721	AK301 PER	Segment ID Code PER
719	AK302 8	Segment Position in the Transaction Set 8th segment in the transaction
050	AK4*2*366*7 N/L	
	Data Element Note	
C030	AK401 2	Position in Segment Second element in the segment.
725	AK402 366	Data Element Reference Number Data Element 366
723	AK403 7	Data Element Syntax Error Code 7 - Invalid code value
060	AK5*R N/L	
	Transaction Set Response Trailer	
717	AK501 R	Transaction Set Acknowledgement Code R - Rejected

070 AK9*A*3*3*2 N/L**Functional Group Response Trailer**

715	AK901	A	Transaction Set Identifier Code A - Accepted
97	AK902	3	Number of Transaction Sets Included in the Functional Group being acknowledged (from GE01 of the group being acknowledged).
123	AK903	3	Number of Received Transaction Sets (Receiver's count)
2	AK903	2	Number of Accepted Transaction Sets

080 SE*12*0001 N/L**Transaction Set Trailer**

96	SE01	XX	Number of Included Segments (in the transaction).
329	SE02	0001	Transaction Set Control Number. Must be the same as in ST02.

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B.3 997 Functional Acknowledgement Sample Transmission

This example is based on receipt of a transmission containing 3 reports (transaction set 863 - Report of Test Results); two were correct; the third had an error in the eighth segment, a PER which contained an invalid code in the second data element (DE 366).

ST*997*0001 N/L
AK1*RT*2 N/L
AK2*863*0001 N/L
AK5*A N/L
AK2*863*0002 N/L
AK5*A N/L
AK2*863*0003 N/L
AK3*PER*8 N/L
AK4*2*366*7 N/L
AK5*R N/L
AK9*A*3*3*2 N/L
SE*12*0001 N/L

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